

ABSTRACT

The present invention is generally directed to a method and assembly for supporting an actuation apparatus (e.g. a movable electrostatic comb) of a microelectromechanical (MEM) system. A suspension assembly of the present invention generally resists actuation forces inherent to electrostatically controlled MEM systems by utilizing an opposingly-directed non-linear tensile force. This can be accomplished by utilizing a suspension assembly of the invention including a longitudinal center beam and a plurality of first and second lateral beams extending out from lateral sides of the center beam. When the center beam of the suspension assembly is drawn in a first direction due to the actuation force(s), either or both of the plurality of first lateral beams and the plurality of second lateral beams are stretched to exert a non-linear tensile force having a force vector component generally oriented in a second direction generally opposite the first direction.